

PROJECT TITLE : BIOTECHNOLOGY
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CULTURE COLLECTION

All the strains were recultivated. A part of each strain was freeze-dried and another part was deep frozen in liquid nitrogen.

STRIP-EXTRACT ANALYSIS

Due to several problems encountered with strip-extract denitration, a comparative analysis of a 1 : 10 strip extract and a 1 : 10 extract of a RL - blend was carried out. All the parameters tested had approximately the same concentration, with the exception of total alkaloids, manganese, nitrate and ammonia. There were about ten times more total alkaloids and manganese and about four times more ammonia in the strip extract than in the RL extract. On the other hand the strip extract contained only half the amount of nitrate found in the RL extract.

The problems encountered with the strip extracts (1) were obviously not due to the absence of trace elements or other substances normally found in RL extracts.

STRIP EXTRACT DENITRATION (2)

If strips were extracted in a ratio of 1 : 15 with water at 20°C, no problems with the denitration of the extract occurred. This result was obtained using a glucose : nitrate ratio of 25.8 and was confirmed up to a dilution rate of 0.27 hr⁻¹. If the nitrate content of the strip extract was doubled by adding potassium nitrate (i.e. raised from 500 to 1000 ppm N-NO₃) the denitration only worked at very low dilution rates. The same problems occurred if the extraction ratio was lowered from 1 : 5 to 1 : 10.

REFERENCES

- (1) Schulthess-D., Monthly Report, Biotechnology July 1981.
- (2) Berney-J., Notebook 81 03 04.

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